

## ABSTRACT

A wireless communications systems employing code-division multiple access information transmission techniques includes a transmission facility having ground-based transmission and reception electronic equipment, a remotely located RF power amplifier, an antenna, and an RF cable connecting the ground-based equipment with the remotely located RF power amplifier. Power level detectors in the ground-based equipment and in the remotely located RF power amplifier measure the signal level at each end of the RF cable. A microcontroller compares these measurements and adjusts a variable attenuator in the transmission signal path and a variable attenuator in the received signal path to compensate for signal level variability due to variations in signal loss.